Replaced by art 19.

CLAIMS

1. An exhaust emission control system comprising:
an internal combustion engine; a filter for capturing
5   particulate matters in an exhaust gas exhausted from the
internal combustion engine; and an exhaust pipe for
introducing the exhaust gas into the filter, the system
comprising combustion means for intermittently burning the
particulate matters captured by the filter, the filter
10   being a honeycomb filter including: at least two end faces;
porous partition walls extending from one end face to the
other end face; and a large number of through channels
partitioned by the partition walls and extending from one
end face through the other end face, predetermined through
15   channels being sealed in one end face, remaining
predetermined through channels being sealed in the other
end face, characterized in that assuming that a partition
wall thickness is (X) μm, and the number of through
channels per unit area in a section vertical to a
20   longitudinal direction of the through channels is (Y)
cells/cm^2, X and Y fall within a range surrounded by
straight lines connecting points A1 (X is 267, Y is 50.4),
B1 (X is 343, Y is 27.1), C1 (X is 470, Y is 27.1), and D1
(X is 394, Y is 50.4) in this order in FIG. 1.
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2. The exhaust emission control system according
to claim 1, wherein the X and Y fall within a range

surrounded by straight lines connecting points A2 (X is 305,

Y is 46.5), B2 (X is 356, Y is 31.0), C2 (X is 432, Y is

31.0), and D2 (X is 381, Y is 46.5) in this order in FIG. 1.

5   3.   The exhaust emission control system according

to claim 1, wherein the X and Y fall within a range

surrounded by straight lines connecting points A3 (X is 330,

Y is 42.7), B3 (X is 356, Y is 34.9), C3 (X is 406, Y is

34.9), and D3 (X is 381, Y is 42.7) in this order in FIG. 1.

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       4.   The exhaust emission control system according

to any one of claims 1 to 3, wherein the internal

combustion engine is a diesel engine.

15   5.   The exhaust emission control system according

to any one of claims 1 to 4, wherein the combustion means

includes exhaust gas temperature raising means for raising

a temperature of the exhaust gas in such a manner as to

start the burning of the particulate matters captured by

20   the filter.

       6.   The exhaust emission control system according

to claim 5, wherein the exhaust gas temperature raising

means includes an adjustment device for adjusting a time to

25 `   supply fuel to the internal combustion engine.

       7.   The exhaust emission control system according

to claim 5 or 6, wherein the exhaust gas temperature raising means includes a supply device for supplying the fuel into the exhaust pipe.

8. The exhaust emission control system according to any one of claims 1 to 7, further comprising: means for lowering the burning temperature of the particulate matters captured by the filter.

9. The exhaust emission control system according to any one of claims 1 to 8, further comprising: means for promoting the burning of the particulate matters captured by the filter.

10. The exhaust emission control system according to any one of claims 1 to 9, wherein the filter contains a ceramic material as a main component.

11. The exhaust emission control system according to any one of claims 1 to 10, wherein the filter is constituted by integration of a plurality of segments of a honeycomb structure.

12. A method of calculating a pressure loss of a honeycomb filter including: at least two end faces; porous partition walls extending from one end face to the other end face; and a large number of through channels

partitioned by the partition walls and extending from one end face through the other end face, predetermined through channels being plugged in one end face, remaining predetermined through channels being plugged in the other

5   end face, the method comprising the steps of: decomposing the pressure loss into at least a pressure loss in a plugged portion, a pressure loss in the through channel, and a pressure loss in the partition wall; and decomposing the pressure loss in the partition wall into pressure

10   losses in cases where any particulate matter is not deposited in the filter and where the particulate matters are deposited to calculate the pressure loss.

     13.   The method of calculating the pressure loss
15   according to claim 12, further comprising the steps of: measuring the pressure loss in the case where the particulate matters are deposited in the predetermined filter; and calculating the pressure loss in the partition wall in the case where the particulate matters are

20   deposited in the filter based on an equation obtained by curve fitting of an increase behavior of the obtained pressure loss.

     14.   A method of manufacturing a filter, wherein a
25   shape of the filter is determined by use of a pressure loss value obtained by the calculation method according to claim 12 or 13.